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The fishes of the Bátorliget Nature Reserves

by
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Abstract: We conducted fish faunistical and ecological surveys in the small waters of Bátorliget in 1988. We could find six fish species in two small watercourses (*Rutilus rutilus, Scardinius erythrophtalmus, Leucaspius delineatus, Gobio gobio, Carassius carassius, Cobitis taenia*).
Key words: fish species, water chemical data, Bátorliget Nature Reserves, Hungary.

The researchers of the Hungarian Natural History Museum made an assessment of the state of the Bátorliget Nature Reserves from 1948 to 1951. The results were issued in 1953 in a book titled The Wildlife of Bátorliget (Székessy 1953a).

The assessment was made almost 40 years ago that is why the changes required a new survey about the present state, and the registration of its ecological parameters and the existing species.

The fish fauna of Bátorliget was very poor according to the previous survey, the discharge of its waters was very small and periodic, and the rettery waters had extreme water chemical parameters because of the retting. The following species were caught: *Cobitis taenia* ("Vasi kútja", Nádasdűlő watercourse), *Gobio gobio* (Nádasdűlő watercourse), *Leucaspius delineatus* ("Sás-árok"), (Székessy 1953b).

Fish faunistical and ecological surveys were made in the small streams of Bátorliget Nature Reserves on September 21st and 22nd, 1988. The fish species were caught with a quadrangular net (its size was 60 x 90 centimetres and the mesh size was 2 x 3 millimetres) and a direct ripple current electric fishing research machine (with 1-1.5 amper and 110 V). This latter mild method was convenient to catch sensitive fish species without hurting them and were replaced into the water without any injury.

The age of the fish species was estimated with the help of the annual scale rings.

The conductivity of the water was measured with Radelkis OK 113 conductivity apparatus and every result was standarized for 20 °C. Water was analysed for pH, with Radelkis OP 110 machine. To determine the dissolved oxygen in the water the Winkler method and Aquamerck 11107 Merck equipment was used, water temperature was measured as well.

Table 1. Water chemical data

	conductivity of water (μScm^{-1})	pH	temperature of water (°C)	dissolved oxygen (mg/l)	saturation of oxygen (%)
Pilis-Pirigye stream	314	7.6	17.2	4.3	48
Nádasdűlő watercourse	381	7.9	17.9	5.8	65

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We could catch the following fishes:
Rutilus rutilus (Linnaeus, 1758)
Scardinius erythophthalmus (Linnaeus, 1758)
Leucaspius delineatus (Heckel, 1843)
Gobio gobio (Linnaeus, 1758)
Carassius carassius (Linnaeus, 1758)
Cobitis taenia (Linnaeus, 1758)

We could only find fishes in two small watercourses; in the Pilis-Pirigye stream and in the Nádasdűlő watercourse. To sum it up, the Nature Reserves is poor both in fish species and in number of individuals.

Table 2. The examined specimens and their estimated ages

	Pilis-Pirigye stream	Nádasdűlő watercourse
Rutilus rutilus	-	2 specimens, 2-3 years
Scardinius eryth.	-	1 specimen, 2 years
Leucaspius delineatus	5 specimens, 3 years	3 specimens, 2-3 years
Gobio gobio	1 specimen, 3 years	-
Carassius carassius	1 specimen, 1 years	1 specimen, 2 years
Cobitis taenia	2 specimens, 3 years	3 specimens, 3-4 years

Forty years ago *Gobio gobio, Cobitis taenia, Leucaspius delineatus* were found in the waters of Bátorliget. During our research we caught these three species and in addition we found three other species, such as *Rutilus rutilus, Scardinius erythrophthalmus, Carassius carassius* (but they occured only in limited numbers).

References

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